

Docket No.: AGIL -27,349
10010107-1
(PATENT)

REMARKS

Reconsideration and Allowance are respectfully requested in view of the foregoing amendments and the following remarks.

Claims 1-4, 6-1-10, and 34-37 are pending in this Application.

Claims 1, 2, 6, 8, and 34-37 have been amended.

Claim 5 has been cancelled without prejudice.

Regarding the 35 U.S.C. § 101 Claim Rejections

Applicant appreciates the Examiner's withdrawal of all previous rejections under 35 U.S.C. § 101.

Regarding the Claim Objections

Claim 5 was objected to under 37 C.F.R. 1.75 (c) for being an improper dependent claim for failing to further limit the subject matter of a previous claim. Applicant has cancelled Claim 5 and respectfully requests that the claim objection be withdrawn.

Regarding the § 102 Rejections

On page 7 of the Final Office Action, Claims 7 and 8 were rejected under 35 U.S.C. § 102(e) for being anticipated by *Adam*. Applicant respectfully traverses this rejection because *Adam* does not teach or anticipate scrambling on a group-wise basis. This is supported by the Examiner's own statement on page 6 of the Final Office Action, where the Examiner states "However, *Adam* does not explicitly teach the use of scrambling on a group-wise basis." As such, Applicant respectfully requests that the § 102 rejection be withdrawn and submits that Claims 7 and 8 are ready for allowance.

Docket No.: AGIL-27,349
10010107-1
(PATENT)

Regarding the § 103 Rejection

Claims 1, 5, 34, 35, and 37 were rejected under 35 U.S.C. § 103(a) for being rendered obvious by *Kumar* (U.S. Patent No. 5,825,807) in view of *Bar-Zohar* (U.S. Patent No. 4,575,754).

Applicant agrees with the Examiner that *Kumar* does not teach the specific use of scrambling on a group-wise basis. *Kumar* discusses scrambling starting in column 6, line 52 through column 7, line 20. *Kumar* discusses the use of a scrambling polynomial such as one specified by the CCITT V. 29 specification. There is no suggestion or motivation provided in *Kumar* to use any type of scrambler other than a scrambling polynomial type scrambler. *Kumar* states in column 7, line 4, that the scrambling function is important because the source message may not be random. Again, Applicant points out that there is no suggestion or motivation in *Kumar* to use anything except a scrambling polynomial to eliminate long runs of consecutive binary ones or zeros and to cause a resulting binary message to have approximately equal probabilities for binary digits zero(0) and one (1). Applicant also respectfully points out that the scrambler of *Kumar* is a continuous scrambler and there is no suggestion or motivation in *Kumar* to scramble a data bit stream on a group-wise basis to produce scrambled bits of data.

Bar-Zohar teaches a video scrambler system that scrambles a video signal by partitioning the signal into blocks of segments, reversing the sequence of segments in each block, randomly delaying the reversed segments, and reversing the sequence of the randomly delayed segments. There is no discussion in *Bar-Zohar* that suggests or would motivate one of ordinary skill in the art to replace the *Bar-Zohar* scrambler with a polynomial type scrambler from *Kumar*. There is no requirement in the *Bar-Zohar* reference that needs or motivates one to use a scrambler that statistically balances the number of logic low and logic highs in the groups of data. The mere

Docket No.: AGIL -27,349
10010107-1
(PATENT)

fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination.

Alga Corporation v. Mylan Laboratories, Inc., (Fed. Cir., 06-10919, 9/6/06) is a very recent Federal Circuit precedent that discusses the requirements of obviousness. In this case, the Court stated that in obviousness, the motivation-suggestion-teaching test picks up where the analogous art leaves off. The court stated that, "to reach a non-hindsight-driven conclusion as to whether a person having ordinary skill in the art at the time of the invention would have viewed the subject matter as whole to have been obvious in view of multiple references," then "there must be some rationale, articulation or reasoned basis to explain why the conclusion of obviousness is correct." This important case that further defines the requirements of obviousness further explained that the "motivation to combine" requirement entails "consideration of both the scope and content of the prior art and level of ordinary skill in the pertinent art." Rejections on obviousness grounds cannot be sustained on mere conclusory statements; instead "there must be some articulated reasoning with some rationale underpinning to support the legal conclusion of obviousness."

As such, Applicant respectfully submits that the *Kumar* reference in view of *Bar-Zohar* does not provide the requisite motivation to combine such that the *Bar-Zohar* scrambler could be used to replace the polynomial type scrambler of *Kumar* because the Examiner has not provided any motivation or rationale for why or how the non-polynomial, non-high and low bit balancing, group-wise scrambler of *Bar-Zohar* can be or should be combined with *Kumar*.

Furthermore, Applicant has amended Claim 1 to recite that the "ECC-encoded data comprises ECC redundant code that comprises implicit frame alignment information." ECC redundant code that comprises implicit frame alignment information is supported in the originally filed specification at page 8, lines 4-13 and at page 6, lines 3-7. Applicant further

Docket No.: AGIL-27,349
10010107-1
(PATENT)

respectfully submits that none of the cited art teaches, alludes to, or renders obvious redundant code from an ECC encoder that comprises implicit frame alignment information. As such, Applicant respectfully requests that the rejection to Claim 1 be withdrawn and submits that Claim 1 is ready for allowance.

With respect to Claims 34, 35 and 37, each of these claims have been amended to recite that the "ECC-encoded data comprises ECC redundant code that comprises implicit frame alignment information." Applicant respectfully submits that none of the cited art teaches, alludes to, or renders obvious such an ECC encoder that provides ECC-encoded data having ECC redundant code that comprises implicit frame alignment information. As such, Applicant respectfully requests that the § 103 rejection be withdrawn and submits that Claims 1, 34, 35 and 37 are ready for allowance.

Claims 6-8 were rejected under 35 U.S.C. § 103(a) for being rendered obvious by *Adam* (U.S. Patent 6,628,725) in view of *Bar-Zohar* (4,575,754).

As discussed above, *Bar-Zohar* may scramble data on a group-wise basis but, *Bar-Zohar* does not teach a scrambler that provides groups of scrambled data "having a statistically balanced number of logic low and logic high data bits." Applicant respectfully submits that not all scramblers are designed to statistically balance the logic lows and logic highs of the data bits. Normally, a polynomial type scrambler that uses a particular polynomial for scrambling the bits is used to produce scrambled data having a statistically balanced number of logic lows and highs. Furthermore, with respect to the *Adam* reference, *Adam* does teach a means for statistically balancing the bits in groups of data by randomizing the data there is no teaching or motivation to combine the scrambler of *Bar-Zohar* with *Adam* and expect the resulting device to operate properly. There must be some reasonable rationale, articulation, or reasoned basis to explain why such a combination should be made provided by the Examiner for this obviousness

Docket No.: AGIL-27,349
10010107-1
(PATENT)

rejection to be *prima facie*. Since none was provided, Applicant respectfully submits that this rejection should be withdrawn.

Furthermore, Claim 6 has been amended to recite that the ECC encoded data "comprises redundant code that comprises implicit frame alignment information." Applicant respectfully submits that redundant data having implicit frame alignment information is not found in any of the cited references. As such, Applicant respectfully requests that the § 103 rejection be withdrawn and submits that § 103 rejection should be withdrawn.

Claim 8, is dependent upon Claim 6 and is therefore not rendered obvious for at least the same reasons as discussed above with respect to Claim 6. Furthermore, Claim 8 recites that the received serialized data is converted into "data frames based upon said implicit frame alignment information." Applicant respectfully submits that implicit frame alignment information is not found in the cited art and, in particular, is not taught or suggested as being found in the redundant code of the ECC-encoded data. As such, Applicant respectfully submits that Claim 8 is not taught, alluded to, or rendered obvious by the cited art and respectfully requests that the § 103 rejection be withdrawn.

Claims 2 and 36 were rejected under 35 U.S.C. § 103(a) as being rendered obvious by *Kumar* and *Bar-Zohar* in view of *Adam*. With respect to Claim 2, this claim is dependent upon Claim 1 and is therefore not rendered obvious for the same reasons as discussed above with respect to Claim 1. Furthermore, *Adam* does not teach, allude to or render obvious "converting the serialized data into data frames based upon implicit frame alignment information," which was in the ECC redundant code from the ECC-encoded data. As such, Applicant respectfully requests that the § 103 rejection be withdrawn and submits that Claim 2 is ready for allowance.

With respect to Claim 36, Applicant agrees with the Examiner that the *Kumar* and *Adam* references do not explicitly teach the specific use of scrambling on a group-wise basis. As

Docket No.: AGIL-27,349
10010107-1
(PATENT)

discussed above, the *Bar-Zohar* reference does teach scrambling on a group-wise basis but, Applicant respectfully submits that the Examiner has provided no valid motivation, suggestion or teaching for combining the references. Again, Applicant reminds the Examiner of *Alza Corporation* which states that obvious rejections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rationale underpinning to support the legal conclusion of obviousness. Applicant would agree with the Examiner that the cited art is somewhat analogous art, but Applicant firmly points out that the nature of the problem to be solved in each of the cited references is quite different and as a whole do not suggest to those of ordinary skill in the art to make the combination that the Examiner is suggesting. As such, Applicant respectfully requests that the § 103 rejection be withdrawn.

Furthermore, Claim 36 has been amended to recite that the "ECC-encoded data comprises ECC redundant code that comprises implicit frame alignment information." As discussed above, none of the cited art teaches "ECC-encoded data that comprises ECC redundant code that comprises implicit frame alignment information." As such Applicant respectfully requests that the § 103 rejection be withdrawn and submits that Claim 36 is ready for allowance.

With respect to Claims 3 and 4, these claims are each either directly or indirectly dependent upon Claims 1 and 2. As such, Applicant respectfully submits that these claims are not rendered obvious for at least the same reasons as discussed above with respect to Claims 1 and 2. Applicant respectfully requests that the § 103 rejection be withdrawn and submits that these claims are ready for allowance.

With respect to Claims 9 and 10 these claims are indirectly dependent upon Claim 6 and are therefore not rendered obvious for at least the same reasons as discussed above with respect

Docket No.: AGIL-27,349
10010107-1
(PATENT)

to Claim 6. Applicant respectfully requests that the § 103 rejection be withdrawn and submits that these claims are ready for Allowance.

Applicant respectfully believes that all outstanding grounds raised by the Examiner have been addressed, and thus submits the present case is in condition for allowance, the early notification of which is earnestly solicited.

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Respectfully submitted

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